

2007 RESEARCH PROBLEM STATEMENT

Problem Title: Economics and Project Prioritization

No.: 07.05-4

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Project Champion: Tim Boshert and Ahmad Jaber

(UDOT or FHWA employee who needs this research done, will help the Research Division lead this project, and will spearhead the implementation of the results. If the project gets prioritized at the UTRAC conference, a Champion Commitment Form will be required before funding.)

1. Briefly describe the problem to be addressed.

Transportation planning is an important step for ensuring the vitality of the state of Utah. In the Fall of 2005 and Winter of 2006, the Utah Department of Transportation (UDOT) worked with Brigham Young University (BYU) to explore planning alternatives available to include economic development impacts in the decision making process. Separate from the BYU research, UDOT also worked internally to develop a methodology for project prioritization. As a result of these two efforts, the planning process has greatly improved in the state. There is, however, work to be completed to further refine this process. For example, the results of the economic impact analysis recommends that the Transportation Commission request information from the Governor's Office of Planning and Budget (GOPB) and/or the Governor's Office of Economic Development (GOED) on the economic potential (e.g., job creation) for each project selected in "tier one" analysis process. This information is to be used in conjunction with other "tier two" evaluation criteria in making final project funding decisions. The full list of criteria for use in the tier two analyses as well as the specific process to follow in coordination with the GOPB and/or GOED was not fully developed as part of the original project scope. The purpose of this project, therefore, is to document and formalize the tier one process and to further refine and formalize the process to follow in the tier two analyses. This research will aid UDOT Planning in the decision making process through a formal analysis and report.

2. Strategic Goal: ☒ Preservation ☒ Operation ☒ Capacity ☒ Safety (check all that apply)

3A. List the research objective(s) to be accomplished:

1. Formalize tier one project evaluation process.
2. Establish a set procedure for tier two economic analyses.
3. Further refine and define tier two criteria.
4. Finalize the evaluation process.

3B. List the major tasks to accomplish the research objective(s):

Estimated person-hours:

1. Develop a project scope of work and detailed estimate.
2. Update literature review on long range planning procedures and economic impacts of transportation improvement projects.
3. Formalize tier one and tier two evaluation procedures.
4. Coordinate with UDOT, GOPB, GOED, and the Transportation Commission to determine the level of detail and analysis for economic evaluation of transportation projects.
5. Finalize tier two analysis criteria.
6. Report results to UDOT in the form of a written report.

4. Estimate the cost of this research study including implementation effort (use person-hours from No. 3B): \$35,000

5. Indicate type of research and/or development project this is

Large: ☒ Research Project ☒ Development Project
Small: ☐ Research Evaluation ☐ Experimental Feature ☐ New Product Evaluation ☐ Tech Transfer Initiative
☐ Other: _____

(A small project is usually less than \$20,000 and shorter than 6 months)

6. Outline the proposed schedule (when do you need this done, and how will we get there):

It is recommended that this project begin in late summer or Fall 2007 with the initial tasks of the project scope of work and detailed estimate, followed with the literature review. The work will continue concurrently with the formalization of the evaluation procedures. This will then be followed with the coordination on the tier two analyses, recommendations, and a written report. It is anticipated that the project would take 12-18 months.

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7. What type of entity is best suited to perform this project (University, Consultant, UDOT Staff, Other Agency, Other)?

University and UDOT Staff joint participation.

8A. What deliverables would you like to receive at the end of this project? (e.g. useable technical product, design method, technique, training, workshops, report, manual of practice, policy, procedure, specification, standard, software, hardware, equipment, training tool, etc.)

The deliverable expected from this project would include an engineering report documenting the literature review and research results. The document would finalize the current proposed procedure for economic analysis and the project prioritization process.

8B. Describe how this project will be implemented at UDOT.

This project would be implemented at UDOT through the Planning Division as part of the LRP process to aid in decision making. The result of this research will also be helpful for both the Wasatch Front Regional Council (WFRC) and the Mountainland Association of Governments (MAG) to help with long range planning decisions.

8C. Describe how UDOT will benefit from the implementation of this project, and who the beneficiaries will be.

UDOT will benefit from this project through a more formal and complete procedure for project prioritization.

9. Describe the expected risks and obstacles as well as the strategies to overcome them.

No known risks.

10A. List other people (UDOT and non-UDOT) who are willing to participate in the Technical Advisory Committee (TAC) for this study:

<u>Name</u>	<u>Organization / Division / Region</u>	<u>Phone</u>	<u>Email</u>
Grant Schultz	Brigham Young University	(801) 422-6332	gschultz@byu.edu
Tim Boschert	UDOT Planning	(801) 965-4175	tboschert@utah.gov
Ahmad Jaber	UDOT Planning and Programming	(801) 965-4082	ajaber@utah.gov
John Thomas	UDOT Planning		johnthomas@utah.gov
Chuck Chappell	WFRC	(801) 363-4250	cchappell@wfrc.org
Darrell Cook	MAG	(801) 299-3831	dcook@mountainland.org

10B. Identify other Utah, regional, or national agencies and other groups that may have an interest in supporting this study:

WFRC, MAG, TRB, NCHRP